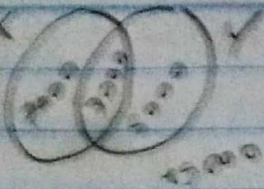


30000



$$T + 10 - X = 15$$

$$X = 15 - 10$$

$$X = 5$$

1) 3000

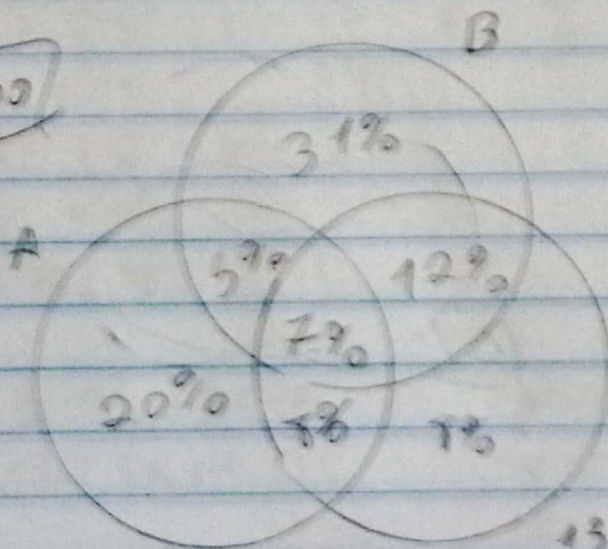
2) $\frac{2}{20}$

3)

	Q.1	Q.2	Q.3
Q.1	48	26	5
Q.2	26	42	14
T	60	40	

48 CX

4) 1500



$$T = 30 + 5 + 12 + 8 + 18 + 12$$

$$T = 90$$

$$90 = 135$$

$$9 = 135$$

$$100 = X$$

$$91 = 13500$$

135

5) 2

$$A = 2^{k+1}$$

$$B = 2^k$$

$$A \cup B = (2^{k+1} + 2^k) - 1$$

$$A \cup B = 2^k$$

6) A $[0, 2, 4, 6, 8, \dots]$

B $[-1, \dots, 8]$

C $[0, \dots, 4]$

AAC $[-4, 2, 0]$

$x \in B // B - D = AAC$

$D = [5, 3, 1, -1]$

[2]

7) $P = 4O + 2OH$

[d]

8) $B_1 = 1000$ L/h

$5000 = 2B_1 + B_2$

$5000 = 2B_1 + 2B_2$

$2B_2 = 5000 - 2B_1$

$B_2 = 2500 - 1000$

$B_2 = 1500$

[C]

9) $f(x) = ax + b$

$f(-1) = -a + b = 1$

$f(1) = a + b = 2$

$\begin{cases} -a + b = 1 \\ a + b = 2 \end{cases}$

$a + b = 2$

$2b = 3$

$b = 1,5$

$-a + 1,5 = 1$

$-a = -0,5$

$a = 0,5$

$f(5) = \frac{5}{2} + \frac{3}{2}$

$f(5) = \frac{8}{2}$

$f(5) = 4$

10) $f(x) = mx + n$ (2,3) (-1,2)

$f(2) = 2m + n = 3$

$f(-1) = -m + n = 2$

$3m = 3$

$m = 1$

11) $y = \frac{2x}{x^2 - 4}$ $x^2 - 4 \neq 0$
 $x^2 \neq 4$
 $x \neq 2$

$D = \{x \in \mathbb{R} / x \neq 2\}$

12) $y = \frac{6 \cdot 2}{6^2 - 4}$ $y = \frac{12}{32}$ $y = \frac{3}{8}$

$y = \frac{3 \cdot 2}{3^2 - 4}$ $y = \frac{6}{5}$

$Im = [\frac{3}{8}, \frac{6}{5}]$

13) $f(g(x)) = 5x - 2$
 $f(x) = 5x + 4$

$5g(x) + 4 = 5x - 2$
 $5g(x) = 5x - 6$
 $g(x) = x - \frac{6}{5}$

(C)

14) $f(x) = ax + b$ (1,5) (2,9)

$f(1) = a + b = 5$

$f(2) = 2a + b = 9$

$a = 4$

$4 + b = 5$

$b = 1$

$(a+b)(10a+9b)$

$(4+1)(40+9)$

(225)

(S)



15) $f(x+1) = f(x) + f(1)$ $f(2) = 1$

$$f(2) = f(1) + f(1)$$

$$f(1) = \frac{1}{2}$$

$$f(3) = f(2) + f(1)$$

$$f(3) = \frac{3}{2}$$

$$f(4) = f(3) + f(1)$$

$$f(4) = 2$$

$$f(5) = f(4) + f(1)$$

$$f(5) = \frac{5}{2}$$